



Access Control Technology



Operating & Installation Instructions for ACTentry A5

18-00064

Contents

Installation Notes	2
Product Specification.....	2
Ordering Information.....	2
20 Second Programming.....	3
ACTentry A5 Operation	4
ACTentry A5 Entry Panel	5
ACTentry A5 Intercom.....	5
Power Supply	6
Cable	6
ACTentry A5 Entry Panel Installation	7
ACTentry A5 Intercom Installation.....	8
Installation steps	9
ACTentry A5 Programming.....	11
<i>PIN Code Management.....</i>	<i>11</i>
<i>Changing User PIN Codes:</i>	<i>11</i>
<i>Changing Programming Code:.....</i>	<i>11</i>
<i>Relay Timers</i>	<i>12</i>
<i>Relay Configuration.....</i>	<i>12</i>
<i>Backlight Settings</i>	<i>13</i>
<i>Incorrect Code Lockout:</i>	<i>13</i>
<i>Restoring Factory Defaults.....</i>	<i>13</i>
Troubleshooting.....	14
ACTentry A5 and Intercom Configuration with DC PSU.....	15
ACTentry A5 entry panel with intercom and Phone Configuration	15
ACTentry A5 and Switch Unit Configuration	16
ACTentry A5 and Intercom Configuration with AC PSU.....	17
ACTentry A5 Dimensioned Diagram.....	17
User List.....	18

Installation Notes

- Remember to Factory Default the ACTentryA5 before programming
- Remember to place the supplied varistor across the terminals of the door strike coil to protect the relay contacts
- Never use the on-board relays to switch AC mains voltage. An external relay, electrically isolated from the ACTentryA5 should be used for this purpose
- Remember to change the programming code.

Product Specification

Number of Users	10
Entry Panel Supply Voltage	15 - 24V DC or AC
Intercom Supply Voltage	15 - 24V DC only
A5 Entry Panel Current Consumption	300mA (maximum)
Intercom Current Consumption	150mA (maximum)
Switch Unit Current Consumption	80mA (maximum)
Operating Temperature	-10 to +60 degrees C
Door Open Time	2 - 255 seconds
Max distance from Intercom and Entry Panel	200m maximum (Belden, CAT5 or external rated CAT 5 for external use)
Relay Contact Rating	5A / 250Vac
Water Resistance	High IP56 (Entry Panel), IP54 (Intercom)
Construction	Rugged Polycarbonate housing

Ordering Information

Product Code	Description
ACTENTRYA5E-PAN	entry panel (external)
ACTENTRYA5ICOM	intercom (internal)
ACTENTRYA5SWITCH	switch unit for multiple entry panels
ACTENTRYA5ICOM-K	intercom kit (entry panel, intercom & PSU)
ACTENTRYA5PSU	DC power supply unit

20 Second Programming Guide

1.Factory Default:

The ACTentry A5 may be returned to its factory default settings at any time by entering the programming mode and pressing the tick (✓) key three times.

Step	Keypad Entry	Operation
1	✗ 9999	Enter Programming Mode
2	✓✓✓	Change Programming code
3	✗	Exit programming

Note: The default Programming code is 9999 and the default code for User 1 is 1234. ACT recommends these codes are changed immediately after defaulting.

2.Change Programming Code:

Example: Make 5214 the new programming code

✗ 9999 0 ✓ 5214 ✗

Step	Keypad Entry	Operation
1	✗ 9999	Enter Programming Mode
2	0	Change PIN codes
3	✓	Change Programming code
4	5214	Enter new 4-digit Programming code
5	✗	Exit programming

3.Change User Code:

Example: Assign code 7529 to User 1

✗ 5214 0 1 7529 ✗

Step	Keypad Entry	Operation
1	✗ 5214	Enter Programming Mode
2	0	Change PIN codes
3	1	Enter User Number 0-9
4	7529	4-digit code
5	✗	Exit programming

4.Lost or forgotten programming code (Hardware factory Default)

If the Programming Code has been forgotten the unit maybe hardware factory defaulted. This will set the programming code to 9999 and the code for user 1 to 1234.

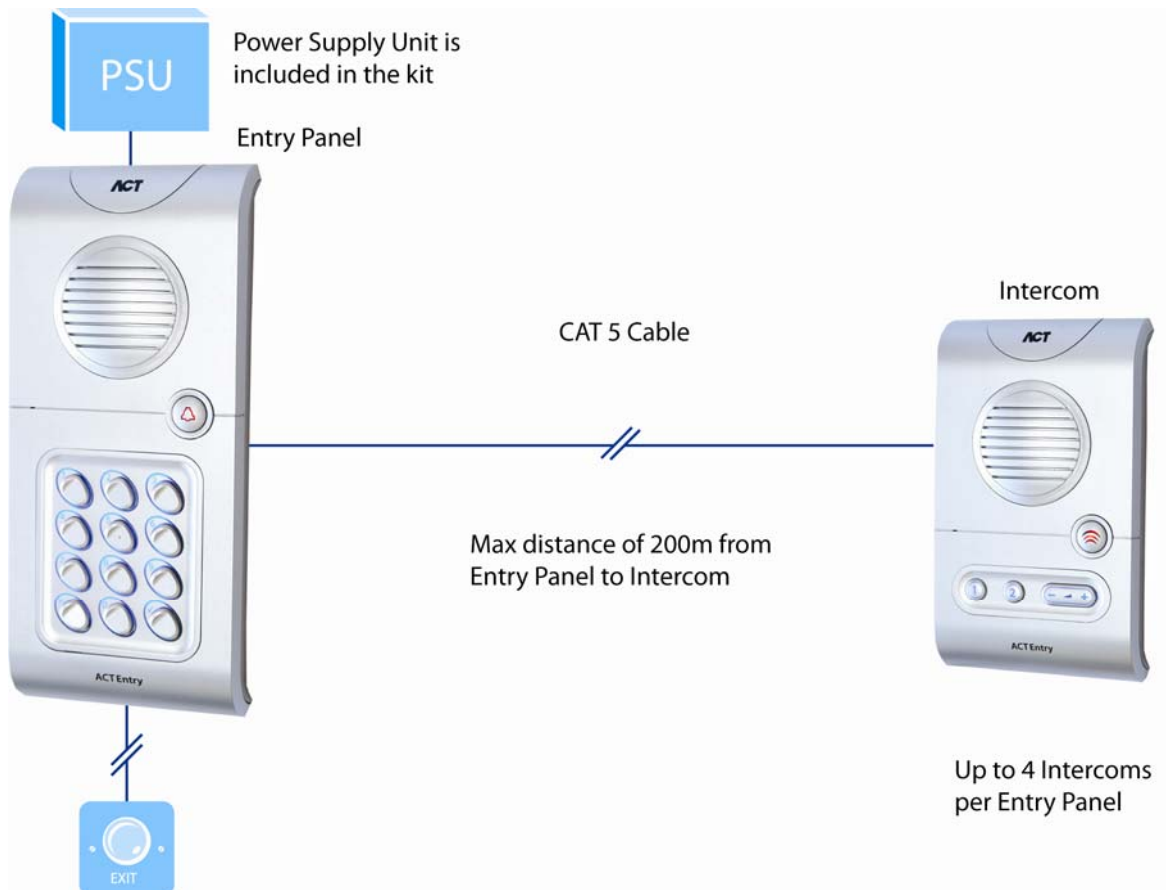
1. Remove the power from the ACTentry A5 Entry Panel.
2. Remove link LK1.
3. Apply power to unit (with LK1 removed).
4. Replace link LK1.
5. Programming Code is now set to 9999. Note: the *unit has been factory defaulted*.

Note: The ACTentry A5 will not operate correctly without LK1 in place. CALL led flashes amber rapidly.

ACTentry A5 Operation

The ACTentry A5 Entry Panel is contained in rugged polycarbonate housing, with programmable backlighting, dual relays and potted electronics, allowing for indoor and outdoor installation. The unit will operate with the ACTentry Intercom and ACTentry Phone. Up to 4 intercoms or phones may be connected to the Entry Panel at a maximum distance of 200m.

The ACTentry A5 Switch Unit is available if a second Entry Panel is required.



ACT
Access Control Technology

Unit C1, South City Business Centre,
Tallaght, Dublin 24, Ireland.

Tel: +353 (0)1 466 2570 UK Lo-call: 0845 300 5204

Web: www.accesscontrol.ie or www.act.eu E-mail: sales@ accesscontrol.ie

Copyright © 2009 Access Control Technology Ltd.

ACTentry A5 Entry Panel



The Entry Panel is securely mounted on the wall at the entrance to the premises. It consists of a speaker grille (label 2), CALL button for visitors (label 3) and a keypad (label 4). The keypad is used for PIN code access or to configure the unit.

Visitors press the CALL button to speak to the householder. Regular users enter their PIN code to gain access (up to 10 User Codes).

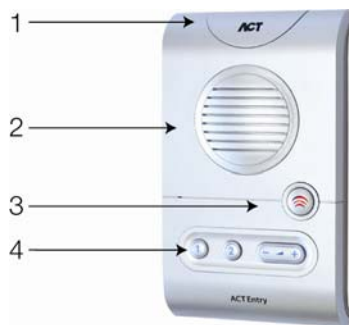
The keypad and call button are backlit for use in low ambient light. The backlight can be switched off if desired.

The Entry Panel is rated for IP56. A security screw is concealed under the cap (label 1).

The volume of the speaker may be adjusted if the unit is in a noisy environment (see page 7).

6 wires minimum are required to connect to the ACTentry Intercom or the ACTentry Phone. Additional wires are required to connect the onboard relays to the gates or doors.

ACTentry A5 Intercom



The Intercom is mounted indoors and has an integrated speaker (label 2), TALK button (label 3), release buttons for Relay 1 and Relay 2 and a volume control button (label 4).

Adjust Ring Volume

The Intercom rings when a visitor presses the CALL Button on the Entry Panel. The volume of the ringing may be adjusted by pressing the - and + keys.

Adjust Speech Volume

To answer the call, the householder presses the TALK button and begins speaking. The speech volume may be adjusted using the - and + keys.

To end the call, the householder should press either 1 or 2 to activate the relays, or press the TALK button.

Activate Relay Indefinitely (Toggle)

Each relay may be switched on indefinitely by holding down the corresponding key on the intercom for five seconds. This allows the door or gate to be opened indefinitely and the corresponding button will flash while the relay is active. Press the button again to restore the relays to the normal state.

Power Supply



The ACTentry A5 kit comes with a 15V 800mA DC power supply. This is enough power to supply 1 Entry Panel, and 3 Intercoms/Phones.

The connections to the 240Vac mains supply must be carried out by a qualified electrician and made in accordance with accepted safety practices.

Cable

Cable Requirements:

For optimum speech clarity, it is strongly recommended that the ACTentry A5 system is installed using CAT5 cable or equivalent. For external use it is recommended to use external rated CAT 5 or equivalent.

The maximum distance between the Entry Panel and Intercom is 200m.

One CAT5 core is suitable for all signal wires (CALL, R, T, DOOR 1 and DOOR2). Power cables (+VIN and 0V) require doubling up on runs of 100m and 200m.

Please use the table below as a guide.

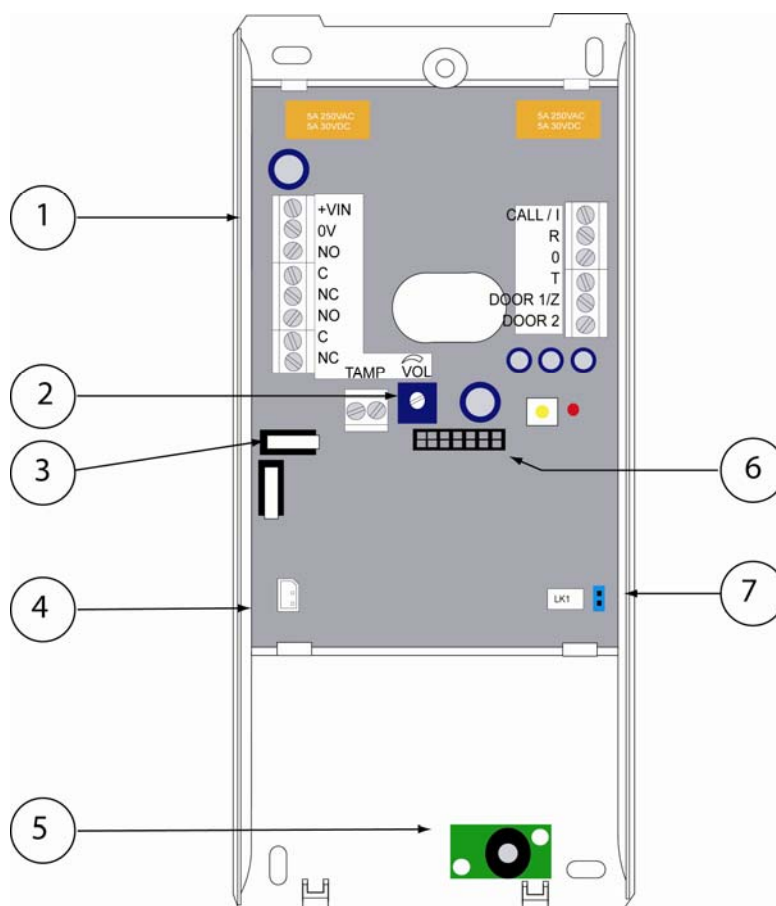
Connection	50m	100m	200m
+VIN	1	2	4
0V	1	2	4
CALL / I	1	1	1
R	1	1	1
T	1	1	1
DOOR1 / Z	1	1	1

Example: For 50m distance from Entry Panel to Intercom, 6 cores are required. For 100m distance, 8 cores are required, 2 for +VIN, 2 for 0V. Signals require one core each.

ACTentry A5 Entry Panel Installation

The ACTentry Entry Panel is made from 2 separate parts: a front unit and a base unit. The front unit contains the speaker and keypad. The base unit contains the electronics, microphone and connector blocks. The two units are interconnected via 2 flying leads, one for speaker (label 4) and one for the keypad (label 6). **Handle these connections with care when connecting or disconnecting!**

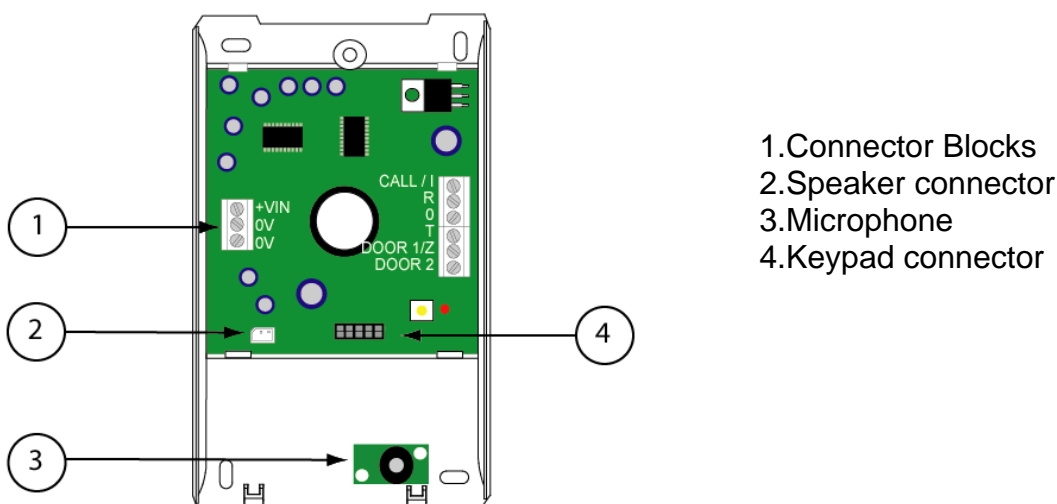
- 1.Connector Blocks
- 2.Volume potentiometer
- 3.Volt-Free Tamper
- 4.Speaker connector
- 5.Microphone
- 6.Keypad connector
- 7.Default Link LK1



Connector	Description
+VIN	+DC Voltage of 15V to 24V or 24Vac
0V	0 Volts
NO	Normally Open Relay Contact
C	Common Relay Contact
NC	Normally Closed Relay Contact
TAMP	Normally Closed Dry Contact (Volt Free). Normally closed in tamper conditions.
CALL / I	Normally low output, + 15V signal to Intercom to ring when CALL button pressed
R	Audio signal input from Intercom
O	0 Volts
T	Audio signal output to Intercom
DOOR1 / Z	Normally 5V input, 0V signal from Intercom and Phone to open Door 1
DOOR 2	Normally 5V input, 0V signal from Intercom to open Door 2

ACTentry A5 Intercom Installation

The ACTentry Intercom is made from 2 separate parts: a front unit and a base unit. The front unit contains the speaker and keypad. The base unit contains the electronics, microphone and connector blocks. The two units are interconnected via 2 flying leads, one for speaker (label 4) and one for the keypad (label 6). **Handle these connections with care when connecting or disconnecting!**

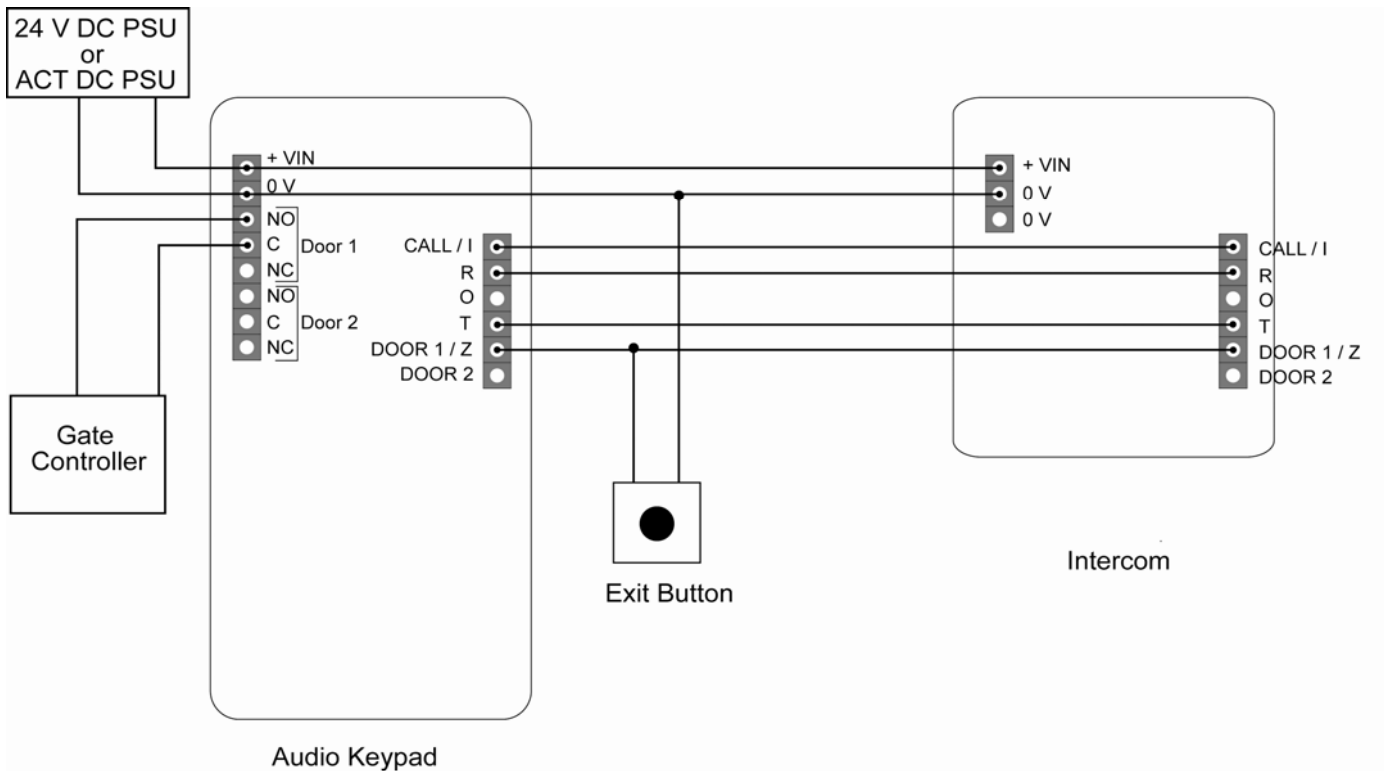


- 1.Connector Blocks
- 2.Speaker connector
- 3.Microphone
- 4.Keypad connector

Connector	Description
+VIN	+DC Voltage of 15V to 24V – Do not use AC.
0V	0 Volts
CALL / I	Normally low input, + 15V signal to ring intercom
R	Audio signal output to Entry Panel
O	0 Volts
T	Audio signal input from Entry Panel
DOOR1 / Z	Normally 5V output, 0V signal when Button 1 is pressed
DOOR 2	Normally 5V output, 0V signal when Button 2 pressed

Installation steps

1. Fix the base units of the Entry Panel and Intercom to the wall and connect as shown below.



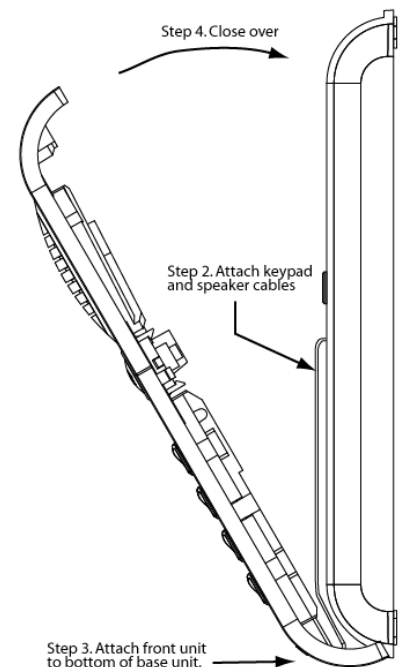
2. Attach the keypad and speaker cables to their connectors on the base unit. **Handle these connections with care!** Both connectors are polarised and can only go in ONE way. Forcing the connectors may permanently damage the unit.

3. Attach front unit to the bottom of the base unit

4. Close over from the top.

5. Repeat steps 2 to 4 for Intercom units.

6. Power up the system.

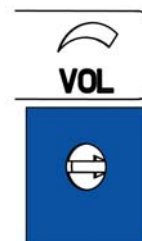


7. Test the audio quality.

The volume on the Entry Panel and Intercom is set in the factory which should be suitable for most environments, if the volume is too low or high for the installed environment then further adjusted can be made manually.

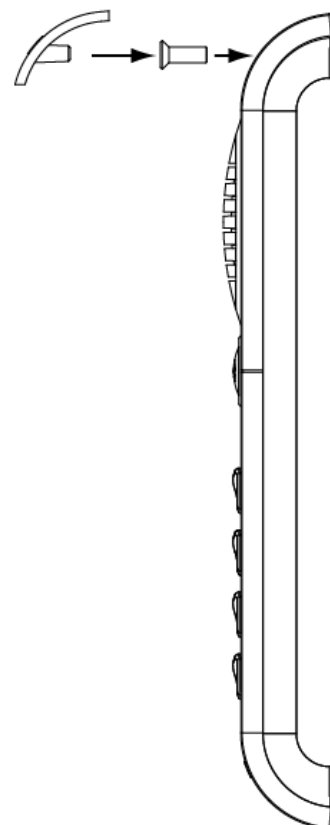
The Entry Panel has one adjustable potentiometer for altering the speech volume. Turn the potentiometer clockwise to increase the volume.

Pressing the – and + buttons on the Intercom, while the speech channel is open (call in progress), will adjust the speech levels. Pressing these buttons, while the intercom is ringing will adjust the ring level.



8. Insert Security Screw and fit cap.

Step 8. Insert Security screw and fit cap



ACTentry A5 Programming

On the Entry Panel, press the **X** button followed by the programming code (initially 9999). The CALL led will flash amber while in programming mode. If **X** is pressed at any time or no key is pressed within 30 seconds, programming mode is exited.

PIN Code Management

Changing User PIN Codes:

Step	Keypad Entry	Operation	Example: Assign code 7529 to User 7	
1	xxxx	Enter Programming Mode	X 9999	Enter Programming Mode
2	0	Change PIN codes	0	Change PIN codes
3	0-9	Enter User Number 0-9	7	User 7
4	0000-9999	4 digit code	7529	PIN code
5	X	Exit programming	X	Exit programming

Example: To assign code 7529 to User 7 press: **X9999 0 7 7529 X**

Deleting User PIN Codes:

Step	Keypad Entry	Operation	Example: Delete User 7 code	
1	X xxxx	Enter Programming Mode	X 9999	Enter Programming Mode
2	0	Change PIN codes	0	Change PIN codes
3	0-9	Enter User Number 0-9	7	User 7
4	0000-9999	0000 deletes User code	0000	PIN code
5	X	Exit programming	X	Exit programming

Example: To delete User 7 code press: **X9999 0 7 0000 X**

Changing Programming Code:

Step	Keypad Entry	Operation	E.g. Set Programming code to 8282	
1	X xxxx	Enter Programming Mode	X 9999	Enter Programming Mode
2	0	Change PIN codes	0	
3	✓	Change Programming code (Default 9999)	✓	
4	0000-9999	New 4 digit programming code	8282	New Programming Code
5	X	Exit programming	X	Exit programming

Example: To set Programming code to 8282 press: **X9999 0 ✓ 8282 X**

Relay Timers

Relay timers are set in the factory to 5 seconds. Timers may be set to any duration between 2 seconds and 4 minutes.

Step	Keypad Entry	Operation
1	X xxxx	Enter Programming Mode
2	2	Set Relay Timers
3	0-1	0 For Relay 1, 1 for Relay 2. {Buzzer sounds indicating timing...wait required period}
4	✓	(Stop timing){Buzzer stops – timer set}

Example: To set Relay 1 time to 10 seconds press: **X9999 2 0 ...wait 10 seconds, then ✓ X**

Relay Configuration

The Output Function code is assigned to a user. For example, one user could be assigned to open Relay 1 and another user could be assigned to open Relay 2. Default function code is 1 (Relay 1 Timed) for all users (all users only activate Relay 1).

Output Function Code	Relay 1	Relay 2
0	Toggled	
1(Default)	Timed	
2		Timed
3	Timed	Timed

When the door is toggled open, this will be indicated by the CALL indicator flashing.

Step	Keypad Entry	Operation	Example: set User 7 to toggle the Relay open/locked	
1	X xxxx	Enter Programming Mode	X 9999	Enter Programming Mode
2	1	Set Outputs	1	Set Outputs
3	0-9	Enter User Number 0-9	7	User 7
4	0-3	Enter 'Output Function Code'	0	Toggled

Example: Set User 7 to toggle Relay 1 (open/locked) press: **X9999 1 7 0 X**

Example: Set User 6 to open Relay 2 press: **X9999 1 6 2 X**

Example: Set User 5 to open Relays 1 and 2 press: **X9999 1 5 3 X**

Backlight Settings

The keypad backlight is permanently on by default. It may be programmed to come on only when a key is pressed (Auto Backlighting), or it may be programmed to be completely off.

Option	Function	Default	Operation
40	Permanent Backlight	On	When set, the keypad illumination is always on. This option will override option 41 (Auto Backlighting).
41	Auto Backlighting	Off	When set, the keypad illumination is normally off, but will switch on in response to any key being pressed or while in programming mode. This option is overridden by option 40 (Permanent Backlight).

Step	Keypad Entry	Operation
1	X xxxx	Enter Programming Mode
2	40 or 41	2 digit option number
3	0 or 1	0 = Off, 1 = On

To prevent any illumination, turn off options 40 and 41.

Example: To prevent any illumination: **X9999 40 0 41 0 X**

Example: To turn off Permanent Backlight: **X9999 40 0 X**

Example: To turn on AutoBacklight: **X9999 41 1 X**

Incorrect Code Lockout:

When three invalid codes have been entered in a row, the keypad will enter lockout mode for 20 seconds. During this time, the Call button will flash red and all user codes will be inactive.

Restoring Factory Defaults

The ACTentry A5 entry panel may be returned to its factory default settings at any time by entering the programming mode and pressing the tick (✓) key three times.

Example: **X 5214 ✓✓✓** (where 5214 was set as the programming code)

If the Programming Code has been forgotten, it may be set to 9999 by:

1. Remove the power from the ACTentry A5 Entry Panel.
2. Remove link LK1.
3. Apply power to unit (with LK1 removed).
4. Replace link LK1.
5. Programming Code is now set to 9999.

Note: The ACTentry A5 will not operate correctly without LK1 in place. CALL led flashes amber rapidly.

This will set the programming code to 9999 and the code for user 1 to 1234. ACT recommends these codes are changed immediately.

Troubleshooting

Low Speech Volume at the Entry Panel

1. Volume adjustment required on the Entry Panel.
2. Entry Panel grill is blocked
3. Entry Panel or Intercom/Phone supply voltage is low (Minimum of 15V DC required)

No speech when the Intercom/Phone is buzzed

1. Wiring fault on the speech signal connections R or T. R carries the audio from the Intercom/Phone to the Entry Panel. T carries audio from the Entry Panel to the Intercom/Phone.

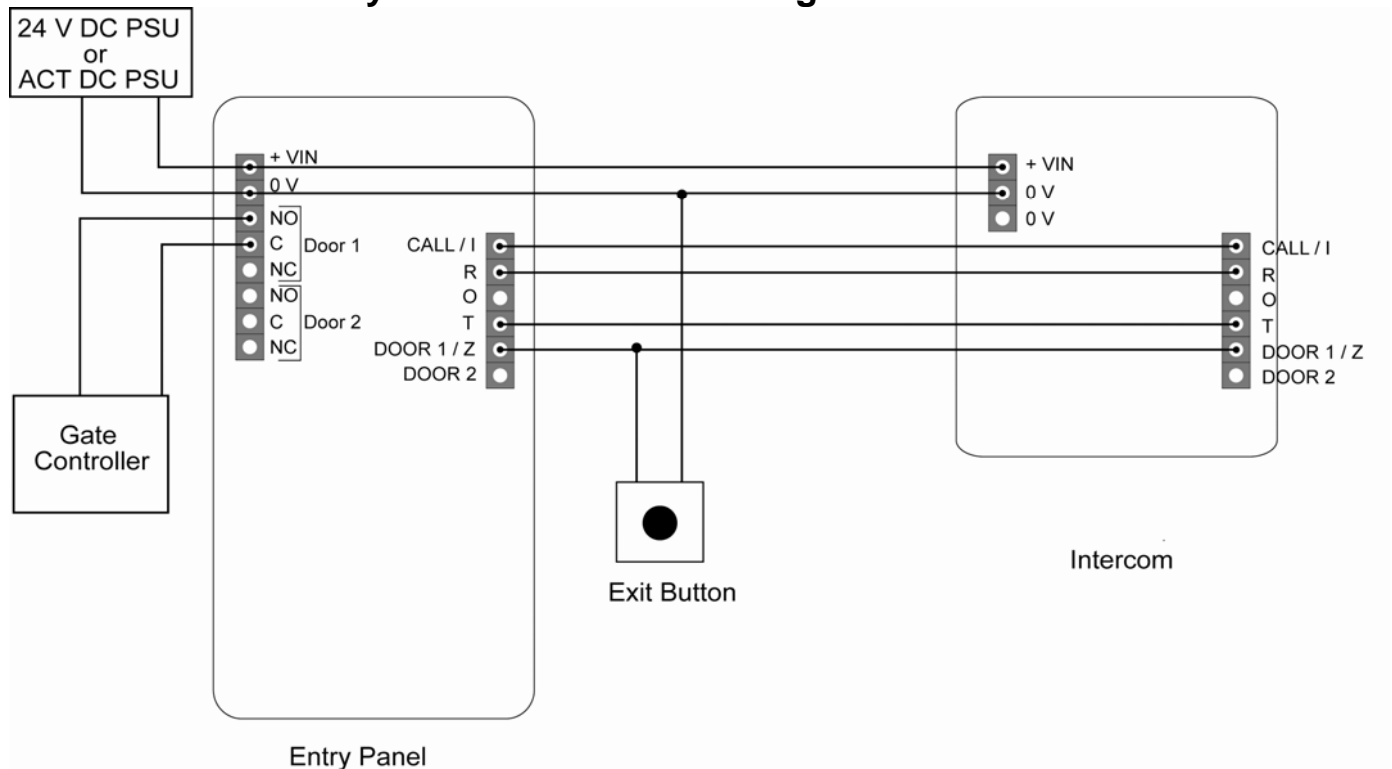
Intercom/Phone will not buzz

1. Faulty 0V or CALL line between power supply and phone. Check for a voltage level between 13V and 15V, between CALL and 0V, when CALL button pressed.

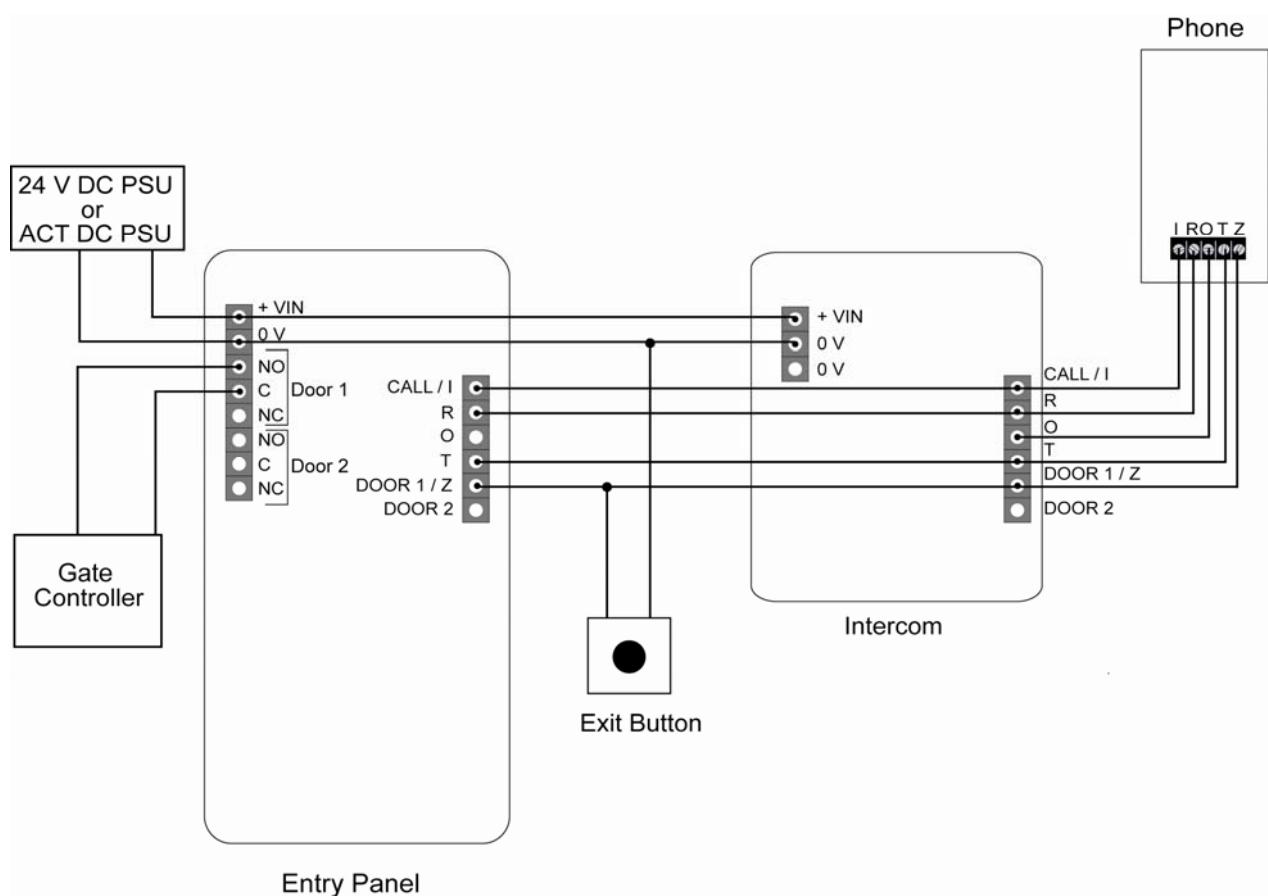
Intercom/Phone Release button does not operate relay

1. Fault on DOOR1 / I or 0V line. Check that it goes to 0V when Button 1 on the intercom is pressed.

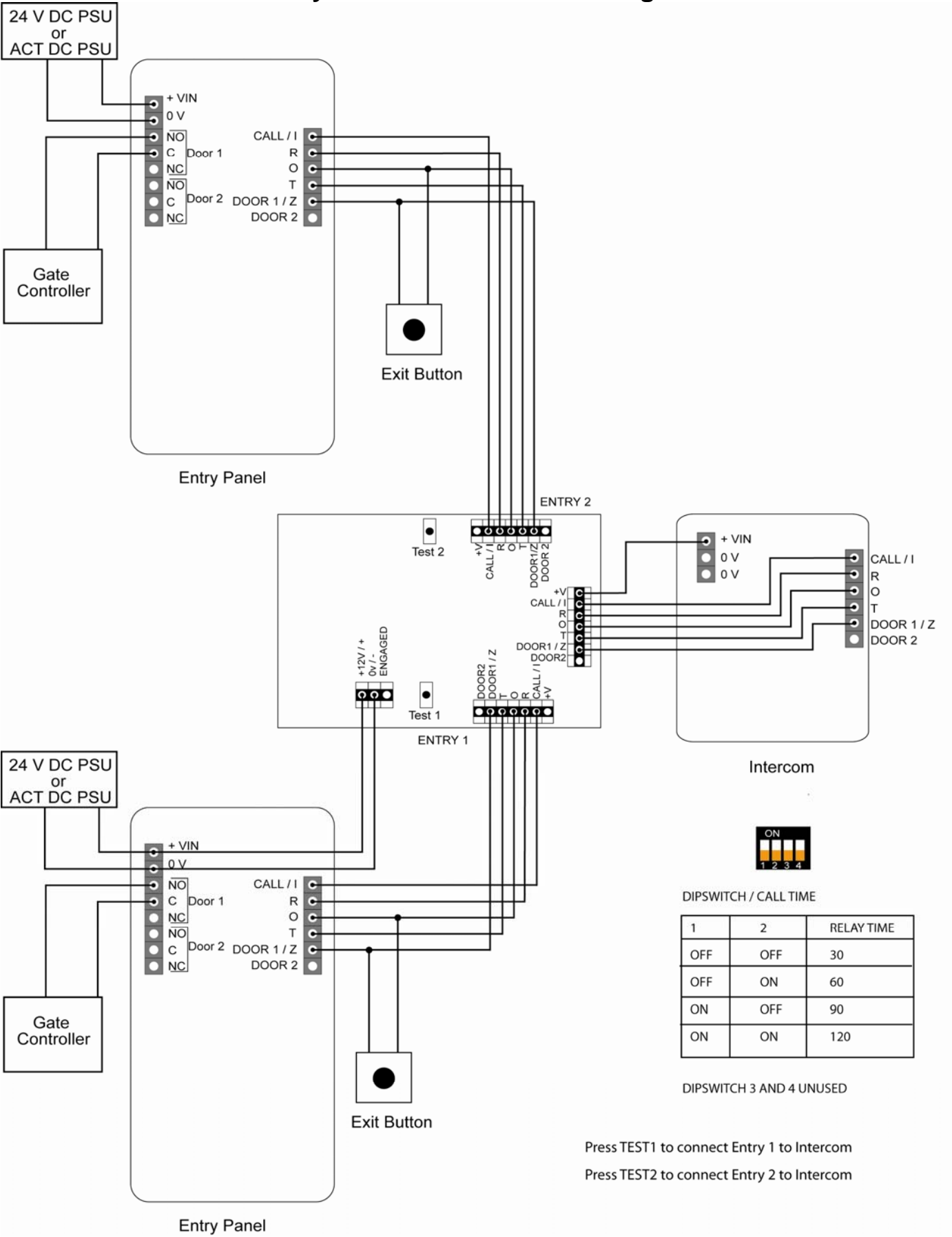
ACTentry A5 and Intercom Configuration with DC PSU



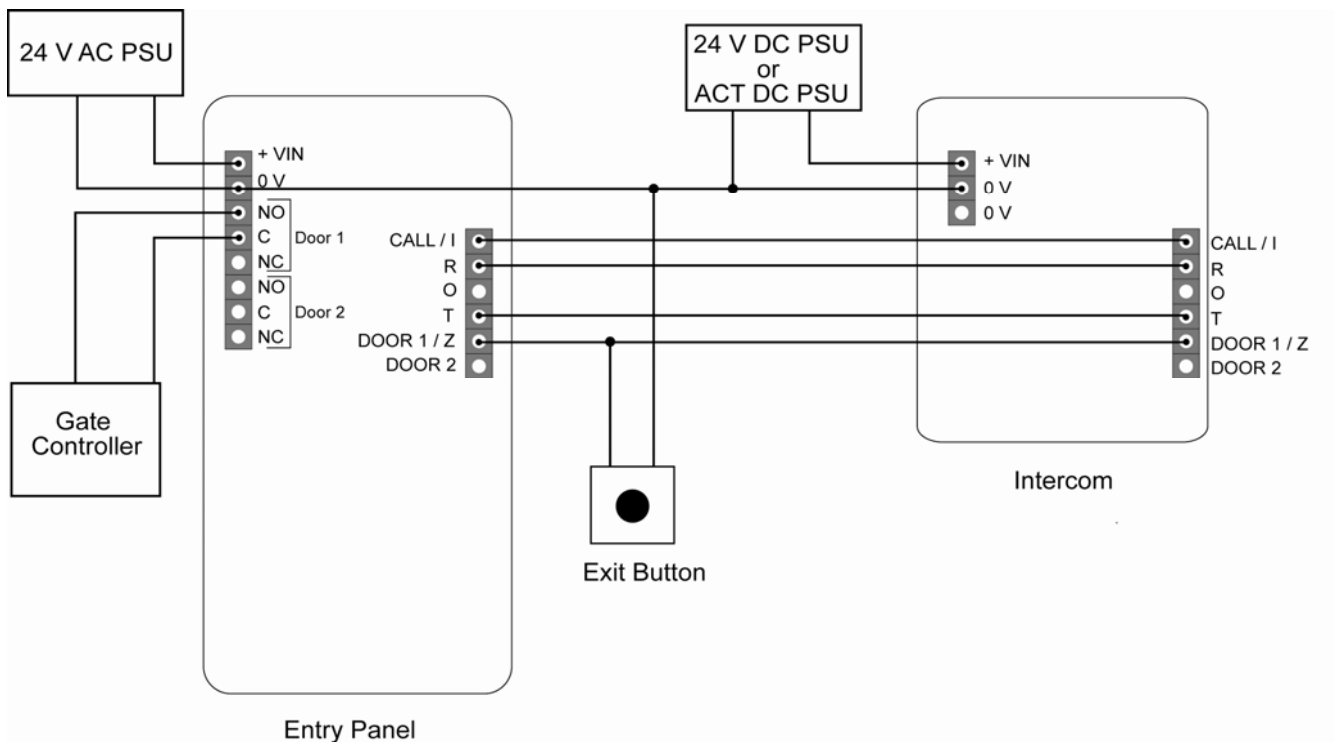
ACTentry A5 Entry Panel with Intercom and Phone Configuration



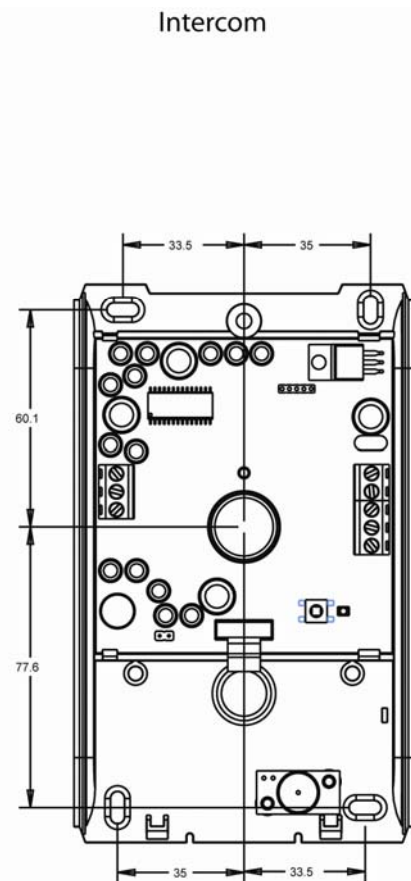
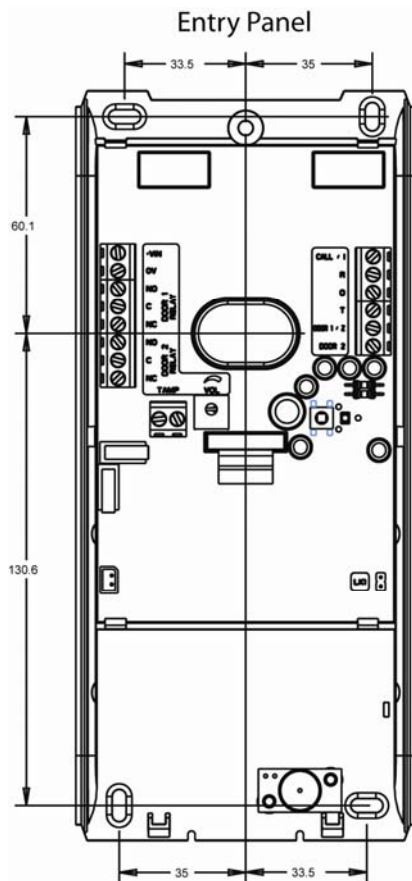
ACTentry A5 and Switch Unit Configuration



ACTentry A5 and Intercom Configuration with AC PSU



ACTentry A5 Dimensioned Diagram



Measurements in mm

User List

User	User Name	PIN	Toggle
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			

Example:

5	John Smith	7529	No
---	------------	------	----